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UNITED STATES DEPARTMENT OF AGRICULTURE  
FARM SECURITY ADMINISTRATION

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HOME DRYING OF FRUITS AND VEGETABLES

*Mrs. Durabach*

THE HOME MADE DRYER

THE HOME MADE DRYER CAN BE EASILY MADE OF SCRAP LUMBER, DRY GOODS BOXES AND OTHER MATERIAL FOUND ON MOST FARMS.

LUMBER NEEDED IF PURCHASED:

POSTS & BRACES 3 PIECES 2"x2"x10'  
DOOR FRAMES AND BRACES 2 PIECES 1"x2"x9'  
SIDES, TOP, BACK AND DOOR 3 PIECES 1/2"x12"x10'  
1 PIECE 1/2"x3"x2'

RUNWAYS FOR TRAYS

3 PIECES 1"x1"x10'  
1 PIECE 1"x1"x5'

TRAY FRAMES 12 PIECES 1/2"x1"x8'  
(OR 25 LATHS)

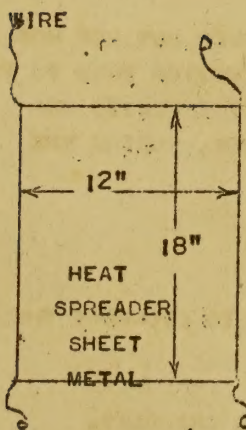
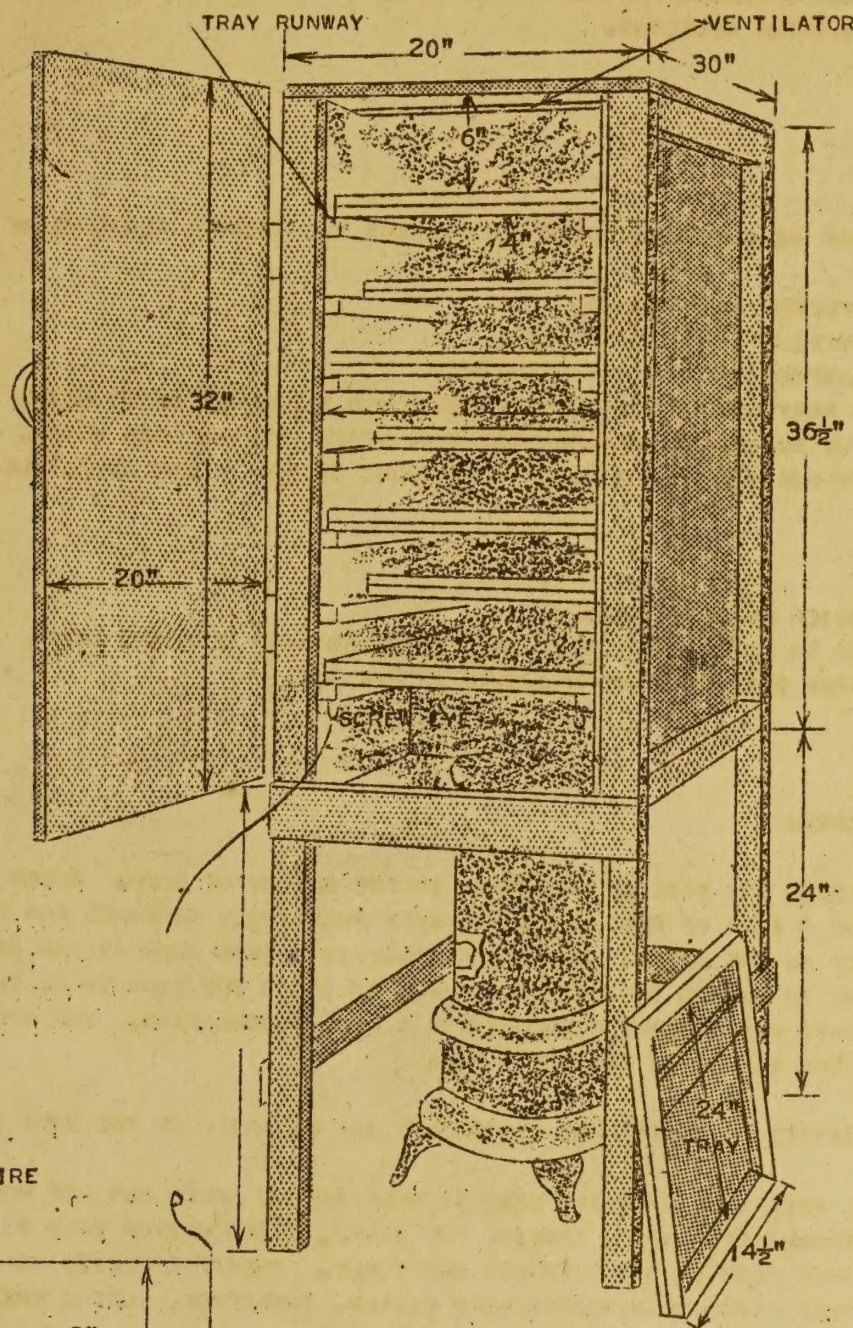
HOW TO MAKE: - BUILD FROM INSIDE MEASUREMENTS. BUILD TWO FRAMES 30" WIDE AND 60" HIGH. USE 2" BY 2" MATERIAL. COVER FRAMES WITH BOARDS FLUSH WITH THE TOP AND SIDES AS SHOWN. NAIL THE RUNWAYS FOR THE TRAYS ON THE INSIDE AS PICTURED. COVER THE TOP OF THE FRAME WITH BOARDS LEAVING ONE 3" SPACE FOR A VENTILATOR WHICH SHOULD BE COVERED WITH SCREEN. COVER THE BACK WITH BOARDS.

MAKE TRAY FRAMES OF LATH COVERED WITH SCREEN WIRE, GALVANIZED WIRE MESH, OR WOODEN SLATS PLACED 1/2" APART.

HANG HEAT SPREADER AT THE CORNERS BY WIRES TO BOTTOM OF THE FRAME AT POINTS INDICATED, ABOUT 2 INCHES ABOVE STOVE.

THIS DRYER CAN ALSO BE USED ON TOP OF A WOOD OR COAL STOVE. IT IS BUILT THE SAME AS THE ONE ILLUSTRATED EXCEPT WITH SHORT LEGS (3" TO 5"). TO PREVENT BURNING NAIL A CAN ON THE BOTTOM END OF EACH LEG. CANS MUST BE THE SAME HEIGHT. KEEP FIRE IN STOVE VERY LOW. THE HEAT SPREADER IS NOT NECESSARY WHEN THE HOME DRYER IS USED ON TOP OF A RANGE.

ACKNOWLEDGMENT IS MADE TO AGRICULTURE EXTENSION SERVICE, UNIVERSITY OF CALIFORNIA "DRYING OF VEGETABLES AND FRUITS IN THE HOME".



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## HOME DRYING OF FRUITS AND VEGETABLES

DRYING OF FRUITS AND VEGETABLES INVOLVES THE REMOVAL OF MOST OF THE MOISTURE FROM THE FOOD SO THAT IT CAN BE KEPT WITHOUT SPOILING.

### WHY DRY FOOD?

#### ADVANTAGES:

FOOD TAKES UP LESS SPACE AND THEREFORE DOES NOT PRESENT THE STORAGE PROBLEMS OF BULK AND CANNED FOODS.

DRIED FOODS ARE NOT AFFECTED BY FREEZING.

DRIED FOOD ADDS VARIETY TO THE FAMILY'S MEALS.

DRYING IS ESPECIALLY ADAPTED TO DRY, HOT CLIMATES.

FOOD CAN BE DRIED WITH VERY LITTLE SPECIAL EQUIPMENT AND THEREFORE COSTS LESS.

FRUITS ARE DRIED WITHOUT SUGAR AND WHEN PREPARED FOR MEALS REQUIRE LESS SUGAR.

DRYING IS THE METHOD TO USE WITH VEGETABLES IF PRESSURE COOKER IS NOT AVAILABLE.

#### DISADVANTAGES:

NOT ALL FOODS CAN BE DRIED SUCCESSFULLY.

FAMILIES NOT ACCUSTOMED TO DRIED FOODS WILL NEED TO LEARN WAYS OF USING THEM.

DRYING IS DIFFICULT WHERE THERE IS MUCH MOISTURE IN THE AIR.

### DRYING WITH HEAT

#### DRYING IN THE HOME MADE DRYER

PUT A PIECE OF CLEAN CLOTH THE SIZE OF THE TRAYS IN THE BOTTOM OF EACH. COVER EACH TRAY WITH NOT MORE THAN  $\frac{1}{2}$  INCH OF FOOD WHICH HAS BEEN PREVIOUSLY PREPARED FOR DRYING. PLACE THE TRAYS OF FOOD IN THE DRYER. THE BOTTOM TRAY IS PUSHED BACK AS FAR AS IT WILL GO. THE NEXT TRAY IS PUSHED IN JUST FAR ENOUGH TO ALLOW THE DOOR TO BE CLOSED, THUS STAGGERING THE TRAYS AND PROVIDING SPACES FOR A FREE CIRCULATION. THE OPENING AT THE TOP ALLOWS FOR THE ESCAPE OF THE MOIST AIR.

SEVERAL DIFFERENT VARIETIES OF FRUITS AND VEGETABLES CAN BE DRIED AT THE SAME TIME.

THE BOTTOM TRAY SHOULD FEEL WARM WHEN THE HAND IS HELD IN THE DRYER BUT NOT HOT. OPEN THE DRYER AT INTERVALS OF  $\frac{1}{2}$  HOUR, EXAMINE THE TRAYS, SHIFT BOTTOM TRAY TO TOP AND MOVE OTHERS ONE SPACE DOWN IN ORDER TO DRY UNIFORMLY. WHEN THE FRUITS AND VEGETABLES ARE ABOUT HALF DRIED THEY SCORCH VERY EASILY, THEREFORE, DURING THE LATTER STAGES OF DRYING USE LESS HEAT AND WATCH CAREFULLY.

#### DRYING WITH A RANGE

DRYING CAN BE DONE ON A RANGE IN MANY WAYS IF CARE IS TAKEN NOT TO OVERHEAT THE FOOD, TO HAVE IT IN THIN LAYERS, AND TO TURN OR STIR IT FREQUENTLY.

ON THE TOP OF THE STOVE FOOD MAY BE DRIED IN HEAVY SKILLETTS OR GRIDDLES.

IN THE OVEN SPREAD FOOD IN A THIN LAYER IN A SHALLOW PAN WITH THE DOOR LEFT OPEN A CRACK.

FOOD MAY BE PLACED ON A FRAME AND HUNG FROM THE CEILING OVER THE STOVE.



TWO LARGE FLAT PANS AND A FUNNEL ARE NEEDED. TWO LARGE DRIPPING OR ROASTING PANS ONE A LARGER SIZE THAN THE OTHER MAY BE USED OR THE PANS CAN BE MADE OF GALVANIZED METAL.

IF THE PANS ARE TO BE MADE THEY SHOULD BE ABOUT 2 FEET LONG AND  $1\frac{1}{2}$  FEET WIDE. MAKE THE BOTTOM PAN WITH THREE INCH SIDES AND THE OTHER WITH ONE INCH SIDES AND A RIM WHICH WILL SUSPEND IT OVER THE BOTTOM PAN LEAVING ABOUT A 2 INCH SPACE BETWEEN THE BOTTOMS OF THE TWO PANS.

MAKE A SMALL HOLE IN THE CORNER OF THE TOP OR SHALLOW PAN AND INTO THIS FIT AN ORDINARY FUNNEL. THROUGH THE FUNNEL WATER IS POURED INTO THE BOTTOM PAN AND STEAM ESCAPES. A FUNNEL CAN BE MADE FROM A TIN CAN BY CUTTING OUT THE TOP AND BOTTOM, OPENING UP THE SIDES AND ROLLING THE TIN SHEET INTO A FUNNEL SHAPE.

KEEP ABOUT AN INCH OF WATER BOILING IN THE BOTTOM PAN. SPREAD A HALF INCH LAYER OF FOOD IN THE UPPER PAN. BARELY KEEP THE WATER BOILING. REPLACE THE WATER AS IT BOILS AWAY. STIR THE FOOD FREQUENTLY.

#### DRYING IN THE SUN

SUN DRYING CAN BE EASILY DONE IN ANY SECTION OF THE UNITED STATES WHICH HAS A LOT OF SUNSHINE, LITTLE RAIN AND VERY LITTLE MOISTURE IN THE AIR.

FOR DRYING SMALL AMOUNTS OF FOOD SPREAD THE FOOD ON SHEETS OF CHEESE CLOTH, OLD THIN CURTAINS, CLEAN SACKS OR WRAPPING PAPER HELD DOWN BY STRIPS OF LATH, BRICKS OR ROCKS. WINDOW SCREENS THOROUGHLY CLEANED AND COVERED WITH CLEAN THIN CLOTH MAY BE USED AS TRAYS ON WHICH TO SPREAD THE FOOD.

DRY FOOD DIRECTLY IN THE SUN ON A ROOF (PREFERABLY TIN) OF A SHED OR PORCH HAVING A SOUTHERN EXPOSURE.

SPREAD THE FOOD NOT MORE THAN  $\frac{1}{2}$  INCH THICK. STIR OR TURN ABOUT TWICE DAILY.

INSECTS MUST BE KEPT AWAY FROM THE FOOD. TO DO THIS COVER THE FOOD WITH MOSQUITO NETTING, CHEESE CLOTH, OR OLD THIN CURTAINS WHILE IT IS DRYING.

EXCEPT IN THE HOTTEST AND DRIEST CLIMATES IT WILL BE NECESSARY TO PUT FOOD UNDER COVER AT NIGHT. ALWAYS TAKE FOOD IN AT THE APPROACH OF A SHOWER.

FOR DRYING LARGE AMOUNTS OF FOOD TRAYS WILL BE NECESSARY. THEY SHOULD BE OF UNIFORM SIZE FOR CONVENIENCE IN STACKING AT NIGHT, ABOUT 2 BY 2 OR 3 BY 3 FEET. THE FRAME OF THE TRAY MAY BE MADE OF 1 BY 2 INCH STRIPS PLACED ON EDGE AND THE BOTTOM COVERED WITH SCREEN WIRE, GALVANIZED WIRE MESH OR BOARDS PLACED SO AS TO LEAVE CRACKS FOR AIR TO PASS THROUGH. SUPPORT THEM ON BRICKS OR BLOCKS SO THAT THERE WILL BE A FREE CIRCULATION OF AIR UNDER AND OVER THE FOOD.

#### PREPARATION FOR DRYING

FOODS FOR DRYING MUST BE FRESH AND SOUND. PREPARE FOR DRYING AS SOON AS PICKED AND START THE DRYING IMMEDIATELY. TIME OF DRYING DEPENDS UPON TEMPERATURE, SIZE OF PIECES, AMOUNT OF WATER TO BE DRIVEN OUT OF FOOD.

#### VEGETABLES

PREPARE THE VEGETABLES AS FOR COOKING.

STEAM FROM 15 TO 20 MINUTES OR COOK IN BOILING WATER FROM 3 TO 5 MINUTES. THIS SETS THE COLOR, HASTENS DRYING AND STOPS THE RIPENING.

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SPREAD ON TRAYS AND START DRYING IMMEDIATELY.

SWEET CORN, STRING BEANS, TENDER SHELLLED PEAS, TENDER SHELLLED LIMA BEANS, OKRA AND SQUASH ARE VEGETABLES THAT CAN BE EASILY DRIED.

VEGETABLES MUST BE "BONE DRY". TIME VARIES FROM ABOUT 4 TO 12 HOURS.

## FRUITS

\* APPLES AND PEARS - PEEL, QUARTER, CORE, CUT IN SLICES ABOUT 1/8" THICK.

\* LARGE STONE FRUITS - CUT IN HALF AND PIT PEACHES, APRICOTS, PLUMS, NECTARINES, AND LARGE PRUNES. ALL OF THESE FRUITS DRY MUCH MORE RAPIDLY IF CUT IN QUARTERS OR SLICED.

CHERRIES - SMALL CHERRIES SHOULD BE DIPPED FOR ONE MINUTE IN BOILING WATER. LARGE CHERRIES SHOULD BE PITTED BUT NOT DIPPED. STEMS MAY BE EASILY REMOVED AFTER THE FRUIT IS DRIED.

FIGS - CUT IN HALF. IF FIGS ARE SMALL OR PARTLY DRIED ON THE TREE, THEY MAY BE DRIED WHOLE.

\* APPLES, PEARS, PEACHES, APRICOTS AND NECTARINES SHOULD BE DROPPED FOR FIVE MINUTES INTO MILD SALT WATER (4 LEVEL TEASPOONS SALT TO ONE GALLON WATER) AND STIRRED GENTLY TO IMMERSE ALL THE PIECES. THIS PREVENTS DISCOLORATION.

APPROXIMATE DRYING TIME FOR FRUITS. FRUITS SHOULD BE DRIED UNTIL LEATHERY BUT NOT HARD. BY REMOVING A PIECE OF THE FRUIT OCCASIONALLY AND ALLOWING IT TO COOL, THE PROPER DEGREE OF DRYNESS MAY BE TESTED. FRUIT WHEN HOT WILL ALWAYS APPEAR SOFTER AND LESS DRY THAN WHEN COOL. THE TIME WILL RANGE FROM ABOUT 6 TO 24 HOURS.

## CURING AND STORING DRIED PRODUCTS

DRIED FOOD SHOULD BE "CURED" OR CONDITIONED BEFORE STORING. AS FOOD IS DRIED PILE IT ON CLEAN PAPER OR CLOTH, ON A TABLE IN A WARM DRY ROOM PROTECTED FROM DUST.

THE PRODUCT SHOULD BE STIRRED DAILY OVER A PERIOD OF FROM 10 DAYS TO 2 WEEKS TO INSURE EQUAL DRYNESS. WHEN THE PARTICLES OF FRUIT FEEL SPONGEY AND FALL APART READILY, THE FRUIT HAS CURED ENOUGH. VEGETABLES SHOULD BE BONE-DRY AND BRITTLE.

WHEN THE CURING IS COMPLETED, REHEAT THE DRIED FOOD FOR 10 TO 15 MINUTES IN A WARM (180°) OVEN TO DRIVE OUT ANY REMAINING MOISTURE. PLACE IN CONTAINERS SUCH AS TIN BOXES OR CANS, GLASS JARS, PAPER OR CLOSELY WOVEN CLOTH BAGS WHICH HAVE BEEN QUICKLY DIPPED IN PARAFFIN TO KEEP OUT MOISTURE, DUST AND INSECTS. THESE CONTAINERS SHOULD BE CLOSED TIGHT AND KEPT IN A WARM DRY PLACE. IF FOOD SHOULD TAKE UP MOISTURE DURING WET WEATHER, IT SHOULD BE GIVEN A SHORT DRYING PERIOD IN THE OVEN AND RETURNED TO THE CONTAINERS.

## SHELLED BEANS AND PEAS DRIED ON THE VINES

THERE ARE CERTAIN KINDS OF BEANS AND PEAS SUCH AS LIMA BEANS, NAVY BEANS, PEAS, BLACK-EYED PEAS, EDIBLE SOY-BEANS AND OTHERS, WHICH MAY BE ALLOWED TO DRY ON THE VINES. AFTER PICKING, SHELLING, AND CLEANING, THESE SHOULD BE HEATED THOROUGHLY IN THE DRYER OR OVEN BEFORE BEING STORED. SPREAD TO A DEPTH OF ONE-HALF TO THREE-QUARTERS OF AN INCH IN TRAYS OR SHALLOW PANS, AND PLACE IN DRYER OR WARM OVEN FOR 15 TO 20 MINUTES. THIS THOROUGH HEATING WILL DESTROY INSECT EGGS AND BEAN WEEVILS AND REDUCE POSSIBILITY OF LOSS IN STORAGE; PRODUCTS SO TREATED CANNOT BE USED FOR SEED. STORE THE HEATED BEANS OR PEAS AS ABOVE.

REFERENCE: "FARM AND HOME DRYING OF FRUITS AND VEGETABLES", UNITED STATES DEPARTMENT OF AGRICULTURE, WASHINGTON, D. C.